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# **MEMORANDUM**

**To:** Transportation Committee

Date: December 30, 2009

From: Bob Dean, Principal Regional Planner

**Re:** Financial Plan for *GO TO 2040* (estimates of financial constraint)

*GO TO 2040* will include a constrained financial plan for its transportation elements. Previous memos to the Transportation Committee have explained the process of developing the financial plan, covering the following topics:

- Introduction to the financial plan (May 15, 2009)
- Context and time frame of process for estimating revenues and costs (June 12, 2009)
- Description of categories of transportation costs (July 31, 2009)
- Estimate of core revenues (September 18, 2009)
- Estimate of "safe and adequate" maintenance and operations costs (October 23, 2009)
- Description of "reasonably expected" revenues (October 23, 2009)
- Estimate of "reasonably expected" revenues (forthcoming, for discussion at January 6, 2010 meeting)

This memo provides a summary and updates to this past work. It also introduces initial estimates of available funding for maintenance projects that move the transportation system toward a state of good repair, strategic improvements, and major capital projects.

Please note that all estimates of revenues and costs are in *year of expenditure* dollars – in other words, inflation has already been added.

## Revenue and cost updates and totals

### Revenue updates

Several updates have been made to the projections of core revenues. The RTA has provided updated projections of revenues related to transit, including sales tax and farebox recovery estimates. Also, staff recognized that local own-source revenue projections had been adjusted for inflation but not for population growth; these were revised upward to account for this change. In total the amount of core revenues available between now and 2040 was increased to \$350.4 billion.

A detailed memo on reasonably expected revenues is included in the January 6, 2010 meeting materials and will be discussed at that meeting. For the purposes of this memo, it is assumed that reasonably expected revenues may reach an additional \$35 billion over the plan's timeframe, although this is still to be determined. This includes a state gas tax increase as well as indexing the gas tax to inflation, a moderate level of congestion pricing on appropriate facilities, and fairly minor new revenues expected from cap-and-trade and from additional pricing of parking. (Please note that this has *not* included any funding for public-private partnerships, as this is expected to be tied to specific major capital projects.) Combining core and reasonably expected revenues (as currently defined) yields approximately \$385 billion.

There are additional revenue sources that are possible, but may be difficult to justify as "reasonably expected." These include changes to the state 55/45 highway funding split as well as more aggressive approaches to congestion pricing and parking pricing. *GO TO 2040* may recommend these actions, but CMAP needs to justify that any revenue included in the fiscal constraint is demonstrably likely to be available. Committee discussion will be encouraged on how aggressive an approach should be taken to these sources.

### Cost updates

Several updates were also made to costs. Based on feedback at the October Transportation committee, it was determined that CMAP's estimates of highway maintenance needs were somewhat high, due to differing interpretations of a "safe and adequate" level of maintenance and a "state of good repair." Staff also made adjustments to maintenance cycles in some cases. Additionally, the cost of transit operations, which had not previously been included, has been added using estimates from the RTA; transit maintenance costs at a safe and adequate level rather than a state of good repair were also estimated, based on figures provided by the service boards in their recent financial and capital business plans. Finally, construction cost increases had initially been expected to significantly outpace inflation for the first several years of the plan; based on recent experience, this assumption may not be accurate. Therefore, construction cost increases are assumed to match the level of inflation during the entire plan period (i.e. 2-3% per year). New estimated costs to maintain the system at a safe and adequate level are as follows:

• Roadway maintenance: \$152 billion

• Roadway operations: \$57 billion

• Transit maintenance: \$30 billion

• Transit operations: \$117 billion

Also, an additional cost not included in the above numbers was identified. As the revenues estimates demonstrated, a significant amount of transportation spending occurs outside of the Transportation Improvement Program (TIP) and overall CMAP process. Local governments spend considerable own-source revenues on local road maintenance. As the region grows in size, additional local road and infrastructure will be constructed (often by developers) to support new housing and employment areas. Even if the initial construction cost is borne by the developer, local governments often take over responsibility for maintenance once the development is complete, and these maintenance costs must be accounted for. This issue has not been addressed in past plans because of its very local scale and because the maintenance and construction of these new local roads does not appear in the TIP.

CMAP staff have estimated that approximately 5,000 miles of new local roads would be needed by 2040 to accommodate future growth if recent development trends continue (compared to approximately 28,000 miles of local roads currently). Assuming that local governments are responsible only for maintenance costs, and not initial construction, this is estimated to add approximately \$5 billion to the region's transportation expenditures. However, the preferred Regional Scenario seeks to encourage growth in existing communities, where infrastructure to support growth is already available; it also includes development concepts such as transitoriented development and conservation design, which have lower roadway infrastructure requirements than conventional developments of similar sizes. Initial staff analysis has estimated that the preferred Regional Scenario will reduce the requirements for new local roads to approximately 3,400 miles between now and 2040, with corresponding expenditure reductions to \$3.4 billion. A full explanation of the methodology used for these calculations will be presented in a forthcoming report (expected to be available in February).

Totaling these estimates, the total cost of maintaining and operating the current transportation system at a safe and adequate level between now and 2040 is approximately \$359 billion.

#### Comparison of revenues and costs

In summary, approximately \$385 billion is expected to be available through core and reasonably expected revenues (as currently defined), and \$359 billion is expected to be necessary to maintain and operate the transportation system at a safe and adequate level. This would leave approximately \$26 billion for projects that move the region beyond a safe and adequate level of maintenance. These include projects that seek to achieve a state of good repair, strategic improvements and enhancements, and major capital projects.

It should be noted that this funding level is related to what is in the *financially constrained* plan. As a long-range plan, *GO TO 2040* also includes recommendations that go beyond this financial constraint, which is based on fairly conservative assumptions about funding availability. Therefore, it is expected that the plan will recommend pursuing transportation system improvements beyond those that are financially constrained.

# Funding by project category

## Project type definitions

The project categories used in this discussion of fiscal constraint were defined in detail in the July 24, 2009 memo (http://www.cmap.illinois.gov/WorkArea/DownloadAsset.aspx?id=16493) concerning the financial plan. In brief:

- The preservation of a "safe and adequate" system is a necessity. Resurfacings, reconstructions, track and structure maintenance, replacement of vehicles or equipment, and other maintenance activities that do not add capacity to the transportation system are in this category. Transit operations are also included in this category. (Please note that the 2020 RTP included a baseline funding level to maintain a similarly named "safe and usable" system.)
- Moving the system toward a "state of good repair" is meant to eliminate maintenance backlogs and bring the entire transportation system to a good or excellent condition. It includes the same types of activities listed above.
- Strategic improvements and enhancements include projects that improve system performance or expand its capacity but are not major capital projects (described in the next bullet). Projects in this category include arterial add-lanes projects, transit operations improvements, new or expanded bus services, pedestrian or bicycle improvements, Intelligent Transportation Systems (ITS) projects, transportation demand management, and many others. The link above contains a longer list of these project types. Projects in this category are addressed systematically rather than individually.
- Major capital projects are specific, large construction projects that add significant capacity
  to the system. These projects are individually identified and evaluated. Updates on
  major capital projects will be given at the January 6, 2010 meeting as part of a separate
  agenda item. Fiscal constraint is particularly relevant to the approach to major capital
  projects, as the cost of the specific recommended projects must fit within the available
  fiscal constraint.

These categories were developed to assist in broadly discussing types of projects. Some projects cross boundaries; the line between a "safe and adequate" maintenance level and a "state of good repair" maintenance level is quite fuzzy. Similarly, some projects include both maintenance and enhancement components and are difficult to classify.

In addition, some major capital projects combine expansion with necessary maintenance. For example, an add-lanes project on an interstate in which the entire roadway is reconstructed would reduce the need for a separate reconstruction project. It is important to avoid double-counting these costs in the approach to major capital projects.

Funding levels in past RTPs, current programs, and long-range plans from other regions
This section is meant to provide additional context for the distribution of funding between these project categories. It compares the conclusion of the financial plan to past plans developed by CATS, the current contents of the Transportation Improvement Program (TIP), and other long-range plans produced by regional agencies in other parts of the country.

Before comparing to other planning efforts, it must be noted that the *GO TO 2040* plan includes a much broader range of transportation costs than past regional transportation planning efforts, both here and in other regions. In particular, it includes locally generated revenues for projects that are typically not included in the TIP, including transit operations, local road maintenance, and others. Only around one-third of revenues and costs noted above would have been included in past revenue estimates.

The financial plan for the 2020 RTP totaled \$86.5 billion. The categories used to classify funding were similar to those used for *GO TO 2040*, and were broken down as follows:

- \$51.5 billion (60%) for maintenance and operations
- \$1.5 billion (2%) for strategic improvements
- \$27.7 billion (32%) for activities that were not fully defined but could be considered either maintenance or strategic improvements (a portion of these can be assumed to be for maintenance and the remainder for strategic improvements)
- \$6.8 billion (8%) for major capital projects

In addition, several long-range plans from other regions were reviewed. A limited number of these plans contained financial plans that were detailed enough to be used for comparison. Significant differences were also found between older metropolitan areas in the east or Midwest (such as the Chicago region) and regions in the west that have experienced more rapid recent growth (such as Seattle or Los Angeles). Older regions spend a much greater share of their resources on maintaining their existing infrastructure, and therefore only these types of regions were used for comparison. Funding classifications from MPOs in the Philadelphia and Baltimore regions are shown below for the purposes of comparison.

Delaware Valley Regional Planning Commission – Philadelphia (\$57.3 billion total)

- \$38.2 billion (67%) for maintenance
- \$12.7 billion (22%) for strategic improvements
- \$6.3 billion (11%) for major capital projects

Baltimore Regional Transportation Board (\$33.4 billion total)

- \$24.7 billion (74%) for maintenance
- \$4.8 billion (14%) for strategic improvements
- \$3.9 billion (12%) for major capital projects

The current TIP was also reviewed and projects were roughly classified into one of the above categories according to work type. The TIP totals approximately \$13.8 billion, and funding across categories is as follows. Please note that the costs of transit operations, which are considerable, are not included in the TIP; these would be classified with maintenance costs if they were included.

- \$10.9 billion (79%) for maintenance
- \$1.8 billion (13%) for strategic improvements
- \$1.1 billion (8%) for major capital projects

Again, it should be noted that none of the examples listed above include the full range of transportation activities that are included in the financial plan for *GO TO 2040*. For example, none include local transportation expenditures, and some do not include transit operations. Nearly all of these additional transportation expenditures would be classified as maintenance or operations.

## Distribution of remaining funds

As indicated on page 3, initial comparisons of revenues and costs indicate that the cost of maintaining and operating our system at a safe and adequate level is expected to require \$359 billion of the \$385 billion estimated to be available. This leaves \$26 billion for activities that move toward state of good repair, systematic improvements and enhancements, and major capital projects. This is a *financially constrained* figure, meaning that the plan will recommend additional improvements beyond what can be funded within available revenues. Clearly, this level of funding will not allow the region to make much progress in addressing our substantial transportation needs. Even if all of the \$26 billion were devoted to achieving a state of good repair, it would not be sufficient. The same is true for other project classifications as well; \$26 billion would not be enough to make all of the strategic improvements or construct all of the major capital projects that are desired.

For the purposes of initiating discussion, staff proposes that the estimated remaining \$26 billion be split roughly into thirds among the three project categories. This distribution is **not** a recommendation, but a starting point for discussion:

- \$9 billion for additional maintenance activities that move toward state of good repair
- \$9 billion for strategic improvements and enhancements
- \$8 billion for major capital projects

Because maintenance and strategic improvement projects are treated systematically rather than as individual projects, assignment of projects and costs into these categories can be fuzzy. In contrast, the level of funding for major capital projects must be firm, because the plan must include a list of fiscally constrained capital projects. This is a particularly important discussion point for the January 6 meeting.

ACTION REQUESTED: Discussion of initial estimation of reasonably expected revenues, cost and revenue totals, and funding by project category.